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FOREIGN ANIMAL  
DISEASES REPORT



JUNE 1973

HOG CHOLERA ACTIVITIES



The Secretary of Agriculture's National Hog Cholera Eradication Advisory Committee met in Kansas City, Mo., May 22-23, in conjunction with the 1973 meeting of Livestock Conservation, Inc. (LCI).

The first of three major recommendations made by the Committee calls for identification of all swine shipped across State lines. Currently, State or Federal regulations require only identification of some feeder and breeder swine shipped across State lines, with no such requirement covering slaughter animals.

Secondly, the Committee recommended that USDA urge the States to take action prohibiting garbage feeding, allowing sufficient time for garbage feeders to switch to another feed source. Committee members heard a report on a recycling process, developed in Georgia, that converts garbage into a safe, nutritious feed supplement for poultry or livestock. The recommendations urged that USDA offer technical assistance in developing such processes.

Thirdly, the Committee recommended that the Federal and State Governments cooperate in establishing an intensive surveillance system along the entire length of the U.S.-Mexico border, with the idea of quickly detecting and eliminating any hog cholera infection in that region.

The most recent positive hog cholera case was diagnosed May 2 near Progreso, Texas, less than one half mile from the Texas-Mexico border. The source is not known, but the owner acknowledged throwing meat scraps and bones to his dogs on the premises. This infected herd of four swine was destroyed May 2 and a nearby herd of seven head, considered exposed to the disease, was destroyed May 3. No further confirmed cases have been reported. This herd is the only positively diagnosed case in one of the 50 states in over 110 days, dating from a case in Virginia diagnosed on February 7, 1973.

By May 18, 1973, the task force established to investigate all herds in the quarantined area of southern Texas had checked half of the approximately 2,000 herds comprising 15,000 head of swine, located in the counties of Hidalgo and Cameron. The survey work should be completed by June 1, after which surveillance will continue by way of the existing reporting system and periodic investigations in the area.

In addition to the inspection of swine on survey, blood serum samples were collected from swine on 87 premises (408 samples) surrounding the infected premises.

Meanwhile, however, in Puerto Rico, the infection was diagnosed in two herds of 60 and 10 head of swine, March 22 and 23. Five additional herds have been destroyed on the basis of exposure to the confirmed infection. Puerto Rico remains under federal quarantine for hog cholera.

Barring unforeseen developments, the federal and State quarantines on Hidalgo and Cameron counties in Texas should be lifted by the first week of June.

#### EXOTIC NEWCASTLE DISEASE ACTIVITIES REPORT

During the period April 23 to May 23, 1973, exotic Newcastle disease was positively diagnosed in three layer flocks consisting of approximately 180,000 birds. One pullet flock consisting of about 116,360 birds was located in the Sunnymead area of Riverside County, California, and was positive on April 28, 1973. One flock of about 13,700 layers in the Fallbrook area of San Diego County was positively diagnosed on April 25, 1973. The other positive flock of about 49,990 layers was located in the Yucaipa area of San Bernardino County, California. This flock was diagnosed positive on May 14, 1973. The epidemiological studies conducted to date indicate that these are isolated cases and that no subsequent spread has occurred. Six backyard flocks consisting of 67 birds were determined to be exposed to exotic Newcastle disease during this reporting period. These flocks were in the Sunnymead and Hemet areas of Riverside County and the Fallbrook area of San Diego County. The Epidemiological Necropsy Surveillance Program (ENSP), which involves the collection and submission of dead birds to the diagnostic laboratory, was responsible for detecting infection in the three positive cases revealed during this period. To date, the ENSP has been responsible for detecting disease in a total of 16 flocks in southern California. At present, 97 percent of the commercial poultry flocks in Orange, Los Angeles, Riverside, San Bernardino, San Diego, and Ventura Counties which had dead birds are covered under the ENSP.

As of May 23, 1973, 363 flocks consisting of approximately 10,571,000 birds in southern California had been determined to be infected with exotic Newcastle disease, and 918 flocks consisting of some 949,800 birds had been determined to be exposed since the declaration of the national emergency on March 14, 1972. These birds were appraised at approximately \$21,587,000. The total supplemental indemnity obligated to date amounts to approximately \$2,459,000.

On May 22, 1973, the State-Federal Newcastle Disease Task Force received a Superior Service Award at the 27th Annual USDA Honor Awards Ceremony in Washington, D.C. This award was presented to members of the task force and was for excellence, creative leadership, dedication, and personal sacrifice in a joint USDA/State of California team effort to eradicate exotic Newcastle disease from California and prevent a national disaster to the poultry industry.

On May 25, 1973, exotic Newcastle disease was diagnosed in three parrots and one macaw brought into the United States to be transhipped to Japan. The



parrots and macaw were submitted to the State Department of Food and Agriculture Diagnostic Laboratory at San Gabriel, California. One parrot was dead on arrival at the laboratory. The isolates from the parrots and the macaw were characterized as viscerotropic velogenic Newcastle disease virus. According to task force officials, the birds were acquired in Honduras, traveled by car to Managua, Nicaragua, and then by air through Mexico City to the Los Angeles International Airport. United States import regulations provide for an individual to bring two personally-owned pet birds into the United States under certain conditions. The bird owner was traveling with a companion and each brought in two birds under the pet bird importing regulations.

REGULATION CHANGES AND QUARANTINE ACTIONS ... The following are excerpts from USDA press releases concerning recent quarantine actions taken by the Department.

Exotic Newcastle Disease Quarantines Lifted in Texas ... Quarantines for exotic Newcastle disease, affecting poultry and other birds, are being removed as of May 3, 1973, from parts of Starr and Hidalgo Counties, Texas.

The area along the Mexican border was quarantined by USDA February 2, following an outbreak of the disease at Los Ebanos, Texas. In cooperation with the Texas Animal Health Commission (TAHC), USDA's Animal and Plant Health Inspection Service (APHIS) immediately set up a task force, with headquarters at Mission, Texas, to eradicate the disease.

Ultimately, some 850 birds from one infected and 52 exposed backyard poultry flocks in and around Los Ebanos were destroyed by the task force to stop the disease from spreading. Flock owners were paid for their birds. Lifting of the quarantine means there are no areas in Texas under USDA restrictions for exotic Newcastle disease.

APHIS and the TAHC removed the Texas quarantine after 90 days of surveillance and monitoring in a four County area--covering Starr, Hidalgo, Willacy and Cameron Counties--failed to produce any signs of exotic Newcastle disease infection on either the infected or exposed properties or in any of the more than 2,000 commercial and backyard flocks monitored.

APHIS officials, however, pointed out that Federal restrictions remain in effect on the importation of poultry and pet birds and poultry meat and eggs from Mexico because of exotic Newcastle disease.

Exotic Newcastle Disease Quarantine Area Reduced in California ... Approximately 130 square miles of San Bernardino County, California, are being removed from the Federal quarantine for exotic Newcastle disease as of May 25, 1973.

The lifting of this section of the quarantine leaves only 400 square miles of southern California still under restrictions on the movement of poultry and eggs because of this virus disease. The area remaining under quarantine covers parts of San Bernardino and Riverside Counties, California.

The 400 square-mile area is all that remains of the original 45,000-square mile quarantine zone which covered all of California's eight southern Counties.

That original quarantine was imposed in March 1972 to stem the spread of the disease to poultry production areas in northern California and the rest of the nation.

The area released from quarantine is in two sections. One area is located generally to the north of Interstate 10 and west of Alabama Street and City Creek Road (State Route 30), and includes the city of San Bernardino. The other is near Ontario, and is generally south of Mission Boulevard and west of the San Bernardino-Riverside county line, and includes the city of Chino.

No areas in Riverside County were removed from the quarantine, which covers about 260 square miles in that County.

## INTERNATIONAL OPERATIONS

The International Operations Staff is committed to developing defensive action related to the international movement of animals and their disease agents. These actions are designed to prevent the introduction of foreign animal diseases into the United States, and if introduced, to enhance the ability of regulatory personnel to minimize their consequences to the American livestock industry.

The work toward these objectives is progressing through three major efforts --

- 1) participation of ongoing programs in countries where exotic diseases exist. The objective here is to become actively familiar with the behavior of these disease agents and to evaluate the efficiency of control programs. Veterinary Services has inherited the reputation for successful disease control and eradication policies and has developed the application of epidemiological principles to disease investigations, reporting, and control that would augment these efforts in most any country of the world. Consequently, Veterinary Services is able to offer this experience in developing programs that are mutually beneficial to the animal health activity of other countries of the world as well as to the United States.

- 2) Development of supporting activities for other countries, particularly those of the Western Hemisphere, in their efforts to prevent the introduction of animal diseases that are now exotic to North America, and to reinforce their ability to recognize and combat these diseases should they gain access. Toward this end Veterinary Services has the authorization to develop bilateral agreements with the countries of Central America, Mexico, Colombia, South America, and with Canada. Several of these cooperative agreements have been accomplished and several animal health specialists including epidemiologists and laboratory scientists have been assigned to the respective countries.

- 3) It is necessary to augment awareness of the patterns of international commerce in animals, poultry, and their products, and consequently the related diseases and their hazards that exist throughout the world. This effort is assisted by Veterinary Services representative in Rome who maintains contact with animal health services of the Food and Agriculture Organization of the United Nations Headquarters in that city, and with the Veterinary Directorates of the countries of Europe, Near East, and Africa. The requirement of



countries to maintain and stimulate international commerce with minimal veterinary restrictions and still assure maximum security to their and to U.S. livestock industries requires constant vigilance over the movements of animals and their related diseases throughout the world. While reporting systems and international organizations are beneficial, it is necessary to have an interpreted evaluation of the information by technically competent personnel of Veterinary Services.

#### USDA SEEKS COMMENTS ON CHANGE REQUESTED IN FOOT-AND-MOUTH REGULATIONS

The U.S. Department of Agriculture (USDA) is seeking public comment of whether or not livestock import regulations dealing with foot-and-mouth disease (FMD) should be changed to allow imports from territories or possessions of foot-and-mouth disease countries infected with FMD.

Current regulations do not permit imports of cattle, sheep, hogs, and other cloven-hooved animals, or their fresh, frozen or chilled meat, from dependent territories of countries considered to be infected with FMD or rinderpest. Many countries of the world are considered infected with either or both diseases.

The request for public comment does not change the current regulations. The call for comments should not be mistaken for any relaxation of USDA's enforcement of FMD and rinderpest import regulations.

A major factor in deciding if a territory belonging to an FMD infected country is free of the disease, is whether it has a completely independent animal health regulatory system. Other factors involve the territory's governmental and commercial relations with the mother country.

Researchers have provided APHIS veterinarians with new and more rapid methods of detecting diseases in some cloven-hooved animals. These methods, along with improved quarantine techniques, are in use today to prevent the introduction of diseases such as FMD and rinderpest.

At the same time, however, this increased research knowledge has also demonstrated that FMD and rinderpest viruses have more involved and lengthy infection routes than once believed.

Because of the requests for change, and the numerous research findings on foreign animal diseases, USDA has decided to seek public response to the question of whether or not the Department should revise its import regulations.

All written comments, and supporting scientific or other evidence, should be postmarked by Sept. 14, 1973, and sent to the Deputy Administrator for Veterinary Services, APHIS USDA, Room 821-A, Federal Center Building #1, Hyattsville, Maryland 20782. Comments received will be available for public review during regular business hours at the Hyattsville address.

## CONFERENCE ON FOOT-AND-MOUTH DISEASE

The second conference on foot-and-mouth disease sponsored by Gustav Stern Foundation was held in New York recently. Participants at the conference, were scientists dealing with the disease from Holland, Germany, France, England, South America, and the United States. In addition to workers in the field of foot-and-mouth disease, several participants were working in related fields of virology or immunology but not necessarily with the virus of foot-and-mouth disease. The objectives of the conference were highly successful: To stimulate possible new directions in the investigations being carried out to subdue the ravages of this world wide animal infection.

## FOOT-AND-MOUTH DISEASE IN EUROPE

In recent months there has been considerable resurgence in the spread of foot-and-mouth disease throughout Europe. According to reports Type C virus was causing considerable trouble in Central and Eastern Europe with major loss being reported in pigs. Subsequently, Type O likewise reappeared and has extensively spread throughout that area. Again, it is being observed mainly in pigs. Some veterinary scientists in that area attribute the predominance of the infection in pigs to the fact that there is a high incidence of vaccination being carried out in cattle in many of the countries affected.

Status of Foot-and-Mouth Disease in Austria ... Prior to this year, Austria had been free from FMD since 1966, however, the epizootic appeared in some parts of Eastern Austria, with new outbreaks reported from about 32 farms. Apparently only hogs are affected at this point, as cattle in exposed areas have been immunized against this virus type, but prophylactic vaccination of hogs is not practicable according to Austrian experts. The present spread of FMD is related to the large volume of traffic, including tourism, and the problems associated with maintaining sanitary control measures.

Conservative estimates place financial losses to date from the first outbreak on January 25, 1973, at \$4 million. About 30,000 hogs and 3,000 cattle were killed by official orders.

( Adapted from Foreign Agricultural Service, telegram, dated May, 1973, received from American Embassy in Vienna, Austria).

## REPORT ON VEE (Venezuelan Equine Encephalomyelitis)

During the past months of 1973 there has been no evidence of epidemic Venezuelan Equine Encephalomyelitis (VEE) in horses in Mexico or the United States. More than two million horses have been vaccinated against VEE in the Government-sponsored vaccination program in Mexico during this calendar year. All reported cases of suspected equine encephalomyelitis have been investigated with negative results.



TYPING OF THE FOOT-AND-MOUTH DISEASE VIRUS  
WORLD REFERENCE LABORATORY FOR FOOT-AND-MOUTH DISEASE VIRUS  
PIRBRIGHT (GREAT BRITAIN)  
Cumulative Quarterly Report

During the period January 1, to March 31, 1973, 93 samples from 14 countries have been examined for type of virus (and subtype where shown). Virus was demonstrated in 58 of these samples (62.4 percent). The origins of these samples and types of virus recovered are tabulated below:

Country	No. of samples	O	A	C	SAT <sub>1</sub>	SAT <sub>2</sub>	SAT <sub>3</sub>	ASIA <sub>1</sub>	No recovery of virus
Angola	3			2					1
Hong Kong	6	6							
Kuwait	7	5							2
Lebanon	3		2						1
Malaysia	10		4						6
Niger	2		2						
Nigeria	7				3				4
Rhodesia	5					2			3
Saudi Arabia	6	6							
Singapore	1		1						
Tchad	4		4						
Uganda	29	9	2		6				12
Yugoslavia	6	4							2
Zambia	4								4
Total	93	30	15	2	9	2			35

The positive results were obtained in tests using: Complement fixation tests on original material in 2 cases = 3.4 percent, complement fixation tests after passage in tissue culture in 56 cases = 96.6 percent. An additional number of samples were sent for subtyping. These samples came from Bulgaria, Germany, Greece, Spain, USSR, and Yugoslavia.

( Adapted from Information Note No. 315 (p), World Reporting Service on the Evolution of Epizootics, International Office of Epizootics).

#### SWINE VESICULAR DISEASE

Great Britain: As of May 31, 1973, there have been no new cases of swine vesicular disease (SVD), and the total still stands at 89 cases and restocking has begun. More recently, 10 farms have been restocked after a thorough cleaning and disinfecting procedures (C&D). Of these, two farms experienced the reoccurrence of SVD; one 8 and one 10 weeks after C&D. The incidence of recrudescence is relatively high as compared with only 8 of the many restocked premises after the 1967 foot-and-mouth disease (FMD) break.

In most recent outbreak, which occurred in the vicinity of Blackburn, on or about April 12, 1973, possibly 25 percent of animals were affected. Clinical observation revealed snout lesions, and some lameness. Post-mortem examination

however, revealed that approximately 70 percent were affected as evidenced by lesions. Only 2 animals had tongue lesions. In experimentally inoculated pigs, skin, lymph nodes, and meat all gave good virus titers beginning 3 days after inoculation, on an average of 2 days before symptoms appeared.

The British authorities go to extreme efforts in their clean up practices, including scraping and wire brushing of walls. Usually, they use 2 percent caustic soda, and a flame gun as the final disinfection of the premises. Their procedure is to spray everything with FAM (an organic iodide) on the day of depopulation, followed by spraying an FAM & TEPOL mixture (TEPOL being an industrial detergent). This is followed by a thorough scraping, and another spraying with 2 percent caustic soda, and a flame gun. The virus in manure is quite resistant at room temperature. At the Pirbright Animal Virus Research Institute the virus has been stored in manure since December, 1972, and is still viable.

Restocking of premises is permitted six weeks after C&D, but only with 50 percent of the swine population on the premises before depopulation (up to 50 pigs).

Austria ... The experience of the scientists at the Hertzendorf Virus Research Institute near Vienna indicates that the initial identification of their outbreak was carried out as a result of vesicular material not fixing complement in their routine screening test for FMD virus. They inoculated swine and cattle. Cattle did not develop lesions while swine developed very pronounced vesicular lesions at the point of inoculation on the snout and on the feet. No cytopathogenic effects (CPE) were observed using the usually FMD-susceptible monolayers, but CPE was produced when SVD virus was placed on pig kidney cell line (1B-RS-2).

It was apparent that regardless of whether they appeared on the snout, or the lips, or the foot, or mammary glands, SVD lesions were clinically indistinguishable from those observed with FMD and there was no shortage of vesicular material available as a virus source. Cross neutralization tests with the 1966 isolate from Italy as well as that obtained from Pirbright Institute were conducted and found to be serologically similar.

France ... 10 cases of SVD were reported but no details were given. (Adapted from reports submitted by Emergency Programs Personnel).

#### STABLE FLY TRANSMISSION OF HOG CHOLERA VIRUS

Preliminary results of laboratory investigations indicate that the stable fly (Stomoxys calcitrans) is capable of transmitting hog cholera virus for at least six hours, and probably up to 24 hours, after feeding on an infected animal. Although still incomplete, these studies reemphasize the need to initiate fly control measures on hog cholera infected premises to help reduce the possibility of area spread of the virus. Veterinary Services Memorandum 561.30 provides guidelines for fly control in support of the hog cholera eradication effort.

The hog cholera virus transmission studies are being conducted in a cooperative

effort between the Veterinary Services Diagnostic Laboratory, APHIS, Ames, Iowa and the Chemical and Biophysical Control Laboratory, ARS, Beltsville, Maryland. When completed, the results of the studies will be formally presented in a scientific journal. Additional transmission studies which are in progress involve the transmission of hog cholera virus by the house fly (*Musca domestica*) and the face fly (*Musca autumnalis*).

#### HORSE FLY CONTROL FIELD TRIALS UNDERWAY

Horse flies, potential mechanical vectors of hog cholera virus (see FAD report of February, 1973, p. 14), are one of the most difficult groups of insects to control. Therefore, field trials are being conducted to further assess the possibility of chemical control to significantly reduce adult tabanid populations on an area-wide basis. In a cooperative effort between Auburn University, the Agricultural Research Service, and the Animal and Plant Health Inspection Service, several promising insecticides are being tested on one square mile plots in a heavily infested area of Alabama during June. The method of application will be by aircraft, using the ultra low volume technique. Where indicated, insecticide monitoring will be conducted to confirm that the chemicals tested have low environmental impact.

Additional tabanid control field trials will be conducted in New Jersey during July by Rutgers University under auspices of a contract with Veterinary Services. The New Jersey trials will also evaluate the ultra low volume method of insecticide application using ground equipment. It is hoped that these field trials will provide operational information which can be applied to the hog cholera eradication program in an effort to reduce the potential area spread of the virus.

#### EASTERN EQUINE ENCEPHALOMYELITIS IN PIGS

As frequently occurs, increasing knowledge often results in the widening of the spectrum of species known to be susceptible to many of the zoonoses.

Of specific interest to this epidemiological surveillance report was the recent publication of the susceptibility of suckling pigs to eastern equine encephalomyelitis (EEE).

The arbovirus encephalitides are difficult diseases to diagnose with any degree of certainty, both in man and in domestic animals. Positive diagnosis requires isolation of the virus or a significant rise in specific antibody titer from acute to convalescent sera. Thus it is not surprising that these diseases go unrecognized in hosts or regions where they have never before been reported.

The fact that suckling pigs are now known to be susceptible to EEE should alert us to the possibility that many other species, resistant as adults, may also be susceptible to the arbovirus encephalitides prior to weaning.

Readers of the report should aid in the dissemination of the knowledge of these possible hazards and thus contribute to earlier discovery of new hosts and regions where encephalomyelitis may be presently occurring.



Reference:

Pursell (A. R.), Peckham (J. C.), Cole (J. R.), Stewart (W. C.) and Mitchell (F. E.) Naturally occurring and artificially induced eastern encephalomyelitis in pigs. J. Amer. Vet. Med. Assn., 1972, 161, 1143-1147.

( Adapted from Information Note No. 315 (1), World Reporting Service on the Evolution of Epizootics).

WORLD DISEASE REPORTS\*

Country	Date 1973	New Outbreaks	Country	Date 1973	New Outbreaks
<u>Foot-and-Mouth Disease</u>					
Argentina	Jan.-March	253	Romania	Jan.-Feb.	1
Austria	Jan.-March	24	Spain	Nov. 1972	132
Bulgaria	Jan.-March	4		Dec. 1972	45
Colombia	Oct.-Dec. 1972	71		January	12
Czechoslovakia	January	5	Switzerland	March	1
Egypt	Feb.-March	6	Tanzania	Dec. 1972	1
Ethiopia	Dec. 1972	8	Tunisia	Feb.-March	3
Greece	Sept.-Dec. 1972	31	Turkey		
	January	2	(Anatolia)	Jan.-Feb.	57
Hong Kong	January	20	Turkey		
India	Oct.-Dec. 1972	151	(Thrace)	February	2
Iran	Feb.-March	51	Uruguay	Oct.-Dec. 1972	32
Iraq	Feb.-March	24	U.S.S.R.	Jan.-Feb.	187
Italy	Jan.-Feb.	2	Western		
Kenya	January	6	Germany	Feb.-March	5
Lebanon	Jan.-Feb.	22	Venezuela	Dec. 1972	3
Rhodesia	Dec. 1972	2		January	3
	Jan.-Feb.	4	Yugoslavia	Oct.-Nov. 1972	12

During the reporting period Argentina has had the highest incidence of FMD followed by U.S.S.R., India, Spain, and Colombia.

Western Germany: In Bavaria, the outbreaks of type C, and A occurred in cattle recently vaccinated. Necessary measures of control have been applied.

Austria: Between January 25, and March 14, 1973, a total of 25 swine farms have been affected by type C of FMD virus. Type O was identified in 2 swine establishments in Burgenland and Lower Austria. Slaughter and strict sanitary police measures have been applied.

Bulgaria: The last secondary outbreak of FMD has been suppressed. As of March 1973, Bulgaria is free from FMD.

Greece: Two new outbreaks of FMD, type O have been reported during March 1973. Sanitary measures were applied.

Switzerland: Type 0 was diagnosed in a heifer kept in a stable of 7 cattle which had been subjected to trivalent vaccination against FMD in March 1973. Slaughter and sanitary measures were applied.

Czechoslovakia: 14 outbreaks, types 0 and C were reported from West-Slovakia. On 4-17-73, a quarantine was applied in closed secondary outbreaks where 0 type was identified. Strict sanitary measures are in force.

#### VESICULAR DISEASES IN THE WESTERN HEMISPHERE\*

Country	Period 1973	Foot-and-Mouth Disease			Vesicular Stomatitis	
		0	A	C	N.J.	Ind.
Argentina	April	55	12	1	-	-
Brazil	Jan.-March	38	45	154	-	-
Colombia	April	2	3	-	2	-
Chile	April	-	1	-	-	-
Ecuador	March-April	8	-	-	-	-
Mexico	April	-	-	-	1	-
Paraguay	March	-	1	-	-	-
Uruguay	Feb.-March	8	1	-	-	-
Venezuela	March-April	1	1	-	-	-

Diagnosis of vesicular diseases outbreaks was based on samples notified by Animal Health Authorities of the Americas.

Nicaragua, Paraguay, and Peru reported the absence of vesicular diseases outbreaks in March and April 1973.

( \*Adapted from Pan-American Foot-and-Mouth Disease Center, Epidemiological Reports, Vol. 5, No. 7, and No. 9, 1973).

#### RINDERPEST

Country	Date 1973	New Outbreaks	Country	Date 1973	New Outbreaks
India	Oct.-Dec. 1972	10	Somalia	April-Dec. 1972	4
Lebanon	Jan.-Feb.	15	Togo	Oct.-Dec. 1972	2
Mali	Oct. 1972	1			
Nigeria (Kaduna)	Oct.-Dec. 1972	1			

#### CONTAGIOUS BOVINE PLEUROPNEUMONIA

Country	Date 1973	New Outbreaks	Country	Date 1973	New Outbreaks
Angola	Dec. 1972	4	Nigeria		
Mali	Sept.-Dec. 1972	36	(Kaduna)	Oct.-Dec. 1972	1
Mauritania	Aug.-Oct. 1972	3	Somalia	April-Dec. 1972	4
Niger	January	3	Togo	Oct.-Dec. 1972	2

### LUMPY SKIN DISEASE

Country	Date 1973	New Outbreaks	Country	Date 1973	New Outbreaks
Madagascar	Dec.72-Jan. 73	8	South Africa		
Rhodesia	Dec. 1972	1	(Rep.)	Jan.-Feb.	13

### SHEEP POX

Country	Date 1973	New Outbreaks	Country	Date 1973	New Outbreaks
India	Oct.-Dec. 1972	41	Kenya	January	1
Iran	Feb.-March	141	Lebanon	January	5
Iraq	Feb.-March	1235	Tunisia	Jan.-March	15
Israel	Nov.-Dec. 1972	2	Turkey	Jan.-Feb.	179
Jordan	March	1			

### AFRICAN HORSE SICKNESS

Lesotho reported 4 cases which occurred during November and December 1972.

### DOURINE

U.S.S.R. reported 1 case which occurred in January 1973.

### AFRICAN SWINE FEVER

Country	Date 1973	New Outbreaks	Country	Date 1973	New Outbreaks
Portugal	Jan.-March	63	Spain	Feb.-March	80

### TESCHEN DISEASE

Country	Date 1973	New Outbreaks	Country	Date 1973	New Outbreaks
Czechoslovakia	January	1	Madagascar	Dec. 1972	9
				January	13

( \*Adapted from International Office of Epizootics Monthly Circulars No. 315 and 316, 1973).